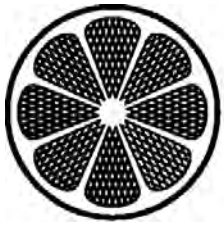

IPC Eagle

OPERATIONS MANUAL

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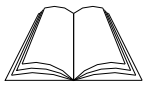
2. GENERAL INFORMATION



Read this manual carefully before carrying out any work on the machine[1]

2.1. Scope of the manual

This manual has been written by the Manufacturer and is an integral part of the machine.

It defines the purpose for which the machine has been designed and constructed and contains all the information required by operators[2].

In addition to this manual containing all user information, other publications are available providing specific information for maintenance personnel[3].

Constant respect for the instructions guarantees the safety of the operator and the machine, low running costs and high quality results and extends the working life of the machine. Failure to respect the instructions may lead to damage to the operator, machine, floor being washed and environment.

To find the topic that interests you more rapidly, consult the list of contents at the beginning of the manual.

Parts of the text requiring special attention are highlighted in bold and preceded by the symbols illustrated and described here.

! DANGER

Indicates the need for attention in order to avoid a series of consequences which could cause death or damage to the health of the operator.

☝ IMPORTANT

Indicates the need for attention in order to avoid a series of consequences which could cause damage to the machine or work environment or financial loss.

i INFORMATION

Particularly important instructions.

In line with the company's policy of constant product development and updating, the Manufacturer reserves the right to make modifications without warning.

Although your machine may differ appreciably from the illustrations in this document, safety and the information contained in this manual are guaranteed.

[1] The definition "machine" replaces the trade name covered by this manual..

[2] Persons responsible for using the machine without performing any operations requiring precise technical skills.

[3] Persons with experience, technical training and a knowledge of legislation and standards, able to perform all the necessary operations and to recognise and avoid possible risks in handling, installation, use and maintenance of this machine.

2.2. Identifying the machine

The rating plate provides the following information:
- model;
- power supply;
- total nominal power;
- serial number;
- year of fabrication;
- dry weight;
- maximum slope;
- barcode with serial number;
- manufacturer's identification.

2.3. Documentation provided with the machine

- User manual;
- guarantee certificate;
- EC certificate of conformity.

3. TECHNICAL INFORMATION

3.1. General description

This machine is a scrubber drier for sweeping, washing and drying flat, horizontal, smooth or moderately rough, even and obstacle free floors in civil and industrial premises. It is available in both battery and cable versions to meet all running time and weight requirements.
The scrubber drier spreads a solution of water and detergent in the correct concentration on the floor and then scrubs it to remove the dirt. By carefully choosing the detergent and brushes (or abrasive disks) from the wide range of accessories available, the machine can be adapted to a wide range of combinations of types of floor and dirt.
A suction system incorporated in the machine dries the floor after washing by means of the low pressure generated in the dirty water tank by the suction motor. The squeegee connected to the tank collects the dirty water.

3.2. Legend

The main parts of the machine are as follows (fig. A):
- the detergent tank (fig. A, ref. 1): contains and transports the mixture of clean water and detergent;
- the dirty water tank (fig. A, ref. 2): collects the dirty water picked up from the floor after washing;
- control panel (fig. A, ref. 3);
- head assembly (fig. A, ref. 4): the main element is the brush which distributes the detergent solution on the floor and remove the dirt;
- squeegee assembly (fig. A, ref. 5): wipes and dries the floor by collecting the water.

3.3. Danger zones

A - **Tank assembly**: when using certain detergents, danger of irritation for eyes, skin, mucous membranes and respiratory tract and of asphyxia. Danger represented by the dirt collected from the environment (germs and chemical substances). Danger of crushing between the two tanks when the dirty water tank is replaced on top of the detergent tank.

B - **Control panel**: danger of short circuit.

C - **Bottom of washing head**: danger due to brush rotation.

D - **Rear wheels**: danger of crushing between the wheel and chassis.

E -**Battery compartment** (in the detergent tank): danger of short circuit between the battery poles and presence of hydrogen during charging.

3.4. Accessories

- **Bristle brushes**: for washing delicate floors and polishing;
- **Polypropylene brushes**: for normal floor washing;
- **Tynex brushes**: for removing accumulated stubborn dirt on resistant floors;
- **Drive disks**: enable the following disks to be used:
    - Yellow disks: for washing and polishing marble and similar surfaces;
    - Green disks: for washing resistant floors;
    - Black disks: for thorough washing of resistant floors with stubborn dirt.

4. SAFETY INFORMATION

4.1. Safety regulations

Read the "User Manual" carefully before start-up and use or before performing maintenance or any other work on the machine.

IMPORTANT

Rigorously respect all instructions in the Manual (in particular those relating to danger and important information) and on the safety plates fitted to the machine. The Manufacturer declines all liability for damage to people or things resulting from failure to observe the instructions.

The appliance must be used exclusively by persons trained in its use and/or who have demonstrated their ability and have been expressly instructed to use the appliance.

The machine must not be used by minors.

The machine must not be used for purposes other than those for which it was expressly designed. Scrupulously respect all safety standards and conditions applicable to the type of building in which the machine is to be operated (eg: pharmaceutical companies, hospitals, chemicals, etc).

Do not use the machine in places with inadequate lighting or explosive atmospheres, on public roads, in the presence of dirt hazardous to health (dust, gas, etc) and in unsuitable environments.

The machine is designed for indoor use only.

The machine is designed for temperatures of between +4°C and +35°C when in use and between +0°C and +50°C when not in use.

The machine is designed to work in a humidity of between 30% and 95%.

Never use or pick up flammable liquids or explosives (e.g. petrol, fuel oil, etc), flammable gases, dry dusts, acids and solvents (e.g. paint solvents, acetone etc) even if diluted. Never pick up flaming or incandescent objects.

Never use the machine on slopes or ramps of more than 2%. In the case of slight slopes, do not use the machine transversally, always manoeuvre with care and do not reverse. When transporting the machine on steeper ramps or slopes, take the utmost care to avoid tipping up and/or uncontrolled acceleration. Tackle ramps and/or steps with the front of the machine raised only.

<u>Never</u> park the machine on a slope.

The machine must never be left unattended with the motor or engine on. Before leaving it, turn the motor or engine off, make sure it cannot move accidentally.

Always pay attention to other people, children in particular, present in the place where you are working.
Children must be supervised to make sure they do not play with the appliance.
The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
Never use the machine to transport people or things or to tow things. Do not tow the machine.
Never rest objects of any weight on the machine for any reason.
Never obstruct ventilation and heat dispersion slits.
Never remove, modify or circumvent safety devices.
Numerous unpleasant experiences have shown that a wide range of personal objects may cause serious accidents. Before beginning work, remove jewellery, watches, ties, etc.
The operator must always use personal protection devices - protective apron or overalls, non-slip waterproof shoes, rubber gloves, protective goggles and ear protectors and mask to protect the respiratory tract.
Keep the hands away from moving parts.
Never use detergents other than those specified. Follow the instructions on the relative safety sheet. We recommend keeping detergents out of reach of children. In the event of contact with the eyes, wash immediately with abundant water. If ingested, consult a doctor immediately.
Make sure the power sockets used for the models with cable or battery charger are connected to a suitable earth system and protected by differential thermal solenoid switches.
Make sure the electrical characteristics of the machine (voltage, frequency, absorbed power) given on the rating plate are the same as those of the mains electricity supply. The machine with cable has a three-wire cable and a three pin earthed plug for use in an appropriate earthed socket. The earth wire is yellow and green. Never connect this wire to anything other than the earth contact of the socket.
It is indispensable to respect the battery manufacturer's instructions and current legislation. The batteries should always be kept clean and dry to avoid surface leakage current. Protect the batteries from impurities such as metal dust.
Never rest tools on the batteries as this could cause short circuit and explosion.
When using battery acid, always follow the relative safety instructions scrupulously.

When using cable models, take care not to crush or pull the power supply cable.

While using the machine, make sure the rotating brush does not come in contact with the power cable (cable powered version).

Check the power cable regularly. If damaged, do not under any circumstances use the machine. Replace it with one of the same type or contact a specialised service centre (cable powered version).

In the presence of particularly strong magnetic fields, assess the possible effect on the control electronics.

Never wash the machine with water jets.

The fluids collected contain detergent, disinfectant, water and organic and inorganic material. They must be disposed off in accordance with current legislation.

In the case of malfunction and/or faulty operation, turn the machine off immediately (disconnecting it from the mains power supply or batteries) and do not tamper. Contact a service centre authorised by the Manufacturer.

All maintenance operations must be performed in an adequately lit place and only after disconnecting the machine from the power supply, in cable models by unplugging the machine from the socket, in battery models by disconnecting the battery connector; in cable models, the operator must be able to verify from any position that the machine remains unplugged from the mains socket while maintenance is being carried out.

In general, in an emergency, power to the machine can be quickly disconnected (battery version) by removing the fuse (fig. L).

All work on the electrical system and all maintenance and repair operations other than those explicitly described in this manual must be performed by specialised personnel expert in the sector only.

If the power cable, plug or terminals require replacing, make sure the electrical connections and cable grip are tightly fastened to guarantee the resistance of the cable if pulled. Only original accessories and spare parts supplied by the Manufacturer may be used in order to guarantee safe problem-free operation of the machine. Never use parts removed from other machines or from other kits.

This machine has been designed and constructed to provide ten years' service from the fabrication date shown on the rating plate. After this time, whether the machine has been used or not, it should be disposed of according to current legislation in the country in which it is used:

- the machine must be disconnected from the power supply, emptied of liquids and cleaned;
- the product is classified as WEEE type special waste and is covered by the requisites of the new environmental protection regulations (2002/96/EC WEEE). It must be disposed of separately from ordinary waste in compliance with current legislation and standards.

Special waste. Do not dispose of with ordinary waste.

Alternatively the machine must be returned to the Manufacturer for a complete overhaul.

If you decide to stop using the machine, you are recommended to remove the batteries and dispose of them at an authorised collection centre.

You should also make sure that all parts of the appliance which could represent a hazard, particularly to children, are made safe.

5. HANDLING AND INSTALLATION

5.1. Lifting and transporting the packaged machine

☝ IMPORTANT

During all lifting operations, make sure the packaged machine is firmly anchored to avoid it tipping up or being accidentally dropped.
Always load/unload lorries in adequately lit areas.

The machine, packaged on a wooden pallet by the Manufacturer, must be loaded using suitable equipment (see EC Directive 2006/42 and subsequent amendments and/or additions) onto the transporting vehicle. At destination, it must be unloaded using similar means.
A fork lift truck must always be used to lift the packaged body of the machine. Handle with care to avoid knocking or overturning the machine.

5.2. Checks on delivery

When the carrier delivers the machine, make sure the packaging and machine are both whole and undamaged. If the machine is damaged, make sure the carrier is aware of the damage and before accepting the goods, reserve the right (in writing) to request compensation for the damage.

5.3. Unpacking

☝ IMPORTANT

When unpacking the machine, the operator must be provided with the necessary personal protection devices (gloves, goggles, etc) to limit the risk of accident.

Unpack the machine as follows:

- cut and remove the plastic straps using scissors or nippers;
- open the packaging;
- remove the bags included in the packaging and check the contents:
  - guarantee slip;
  - use and maintenance manual;
  - battery bridges with terminals (battery model only);
  - battery charger connector (battery models only);
- remove the machine from the packaging;
- clean the outside of the machine in respect of safety regulations;
- after unpacking the machine, install the batteries (battery models) or connect the electrical connections (cable models). See relevant sections.

The packaging may be kept as it can be reused to protect the machine if it is moved to another site or to a repair workshop.
Otherwise it must be disposed off in compliance with current legislation.

5.4. Electrical connections and earth (cable models)

The electrical characteristics of the machine are given on the rating plate. Make sure the frequency and voltage correspond to those of the mains supply where the machine will be operated. As far as voltage is concerned, models where the rating plate specifies a voltage of 230 V can be used with voltages of between 220 V and 240 V. Similarly, models rated at 115 V can be used at between 110 V and 120 V. The frequency on the plate must always correspond to the mains voltage.

☝ IMPORTANT

Make sure the mains circuit is suitably earthed and that the sockets (and any adaptors used) ensure the continuity of the earth conductors.

! DANGER

Failure to observe these instructions could cause possibly serious damage to people and things and invalidates the guarantee.

5.5. Power supply batteries (battery models)

Two different types of battery may be installed on these machines:

- **tubular leak-proof batteries**: the electrolyte level must be checked regularly. When necessary, top up with distilled water until the plates are covered. Do not over fill (5 mm max. above the plates).
- **gel batteries**: this type of battery requires no maintenance.

The technical characteristics must correspond to those indicated in the paragraph on the technical specification of the machine. The use of heavier batteries could seriously jeopardise manoeuvrability and lead to the brush motor overheating. Batteries with a lower capacity and weight will require charging more frequently.
They must be kept charged, dry and clean and the connections must be tight.

5.5.1. Batteries: preparation

! DANGER

During installation of the batteries or any type of battery maintenance, the operator must be provided with the necessary personal protection devices (gloves, goggles overalls, etc) to limit the risk of accident. Keep away from naked flames, avoid short circuiting the battery poles, avoid sparks and do not smoke.

The batteries are normally supplied filled with acid and ready for use.
If the batteries are dry, before mounting them on the machine, proceed as follows:

- remove the caps and fill all elements with specific sulphuric acid solution until the plates are entirely covered (this requires at least a couple of passes for each element);
- leave for 4-5 hours to allow the air bubbles to come to the surface and the plates to absorb the electrolyte;
- make sure the level of electrolyte is still above the plates and if necessary top up with sulphuric acid solution;
- close the caps;
- mount the batteries on the machine (following the procedure described below).

Before starting up the machine for the first time, charge the batteries as follows.

5.5.2. Batteries: installation and connection

! DANGER

Check that all switches on the control panel are in the "0" (off) position.
Make sure you connect the terminals marked with a "+" to the positive poles of the battery. Do not check the battery charge by sparking.
Meticulously follow the instructions given below as short circuiting the batteries could cause them to explode.

- Make sure the dirty water tank is empty and empty if necessary (see relevant paragraph).
- Lift the dirty water tank (fig. B, ref. 1) off the detergent tank by pulling it upwards, making sure you have previously removed the suction hose and dirty water tank drain hose from their housings.
- Place the batteries in the battery compartment.

☝ IMPORTANT

Mount the batteries on the machine using lifting means suitable for their weight. The positive and negative poles have different diameters.

- Connect the battery wiring and bridge terminals to the battery poles. Tighten the terminals on the poles and cover with Vaseline.
- Put the dirty water tank back on the detergent tank.
- When using the machine, follow the instructions below.

5.5.3. Batteries: removal

! DANGER

When removing the batteries, the operator must be equipped with suitable personal protection devices (gloves, goggles, overalls, safety shoes, etc) to reduce the risk of accidents. Make sure the switches on the control panel are in the "0" position (off) and the machine is turned off. Keep away from naked flames, do not short circuit the battery poles, do not cause sparks and do not smoke. Proceed as follows:

- disconnect the battery wiring and bridge terminals from the battery poles.
- if necessary, remove the devices fixing the battery to the base of the machine.
- lift the batteries from the compartment using suitable lifting equipment.

5.6. Battery charger (battery models)

☝ IMPORTANT

Never allow the batteries to become excessively flat as this could damage them irreparably.

i INFORMATION

If the machine has an ON-BOARD battery charger (installed by the manufacturer), no operations are required as it will already be ready for use.

5.6.1. Choosing a battery charger (machines without ON-BOARD battery charger)

Make sure the battery charger is compatible with the batteries to be charged:

– **tubular lead batteries**: you are recommended to use a 24V - 5A automatic battery charger. However, you should always consult the battery charger manufacturer and manual to confirm the choice.
– **gel batteries**: use a charger specific for this type of battery.

5.6.2. Preparing the battery charger

If you wish to use a battery charger not provided with the machine, you must fit it with the connector supplied with the machine (see paragraph "Unpacking" in this manual).
To install the connector, proceed as follows:

- remove about 13 mm of protective sheath from the red and black wires of the battery charger;
- insert the wires into the connector contacts and squeeze them forcefully with suitable pliers;
- respect the polarity (red wire + black wire –) when inserting the wires into the connector.

5.7. Lifting and transporting the machine

☝ IMPORTANT

All phases must be performed in an adequately lit room and adopting the safety measures most appropriate to the situation.
The operator must always use personal protection devices.

To load the machine onto a means of transport, proceed as follows:
- empty the dirty water and detergent tanks;
- place the machine in the packaging, then rest the packaging on a pallet and fix it with plastic straps;
- lift the pallet (with the machine) using a fork lift truck and load it onto the means of transport;
- anchor the machine to the means of transport with cables connected to the pallet and machine itself.

6. PRACTICAL GUIDE FOR THE OPERATOR

6.1. Controls - Description

With reference to fig. C, the machine has the following controls and indicator lights:

- **Power on light** (fig. C, ref. 7 - ***cable model*** only): green, indicates that the machine's power cable is connected to the mains.
- **Battery charge light** (fig. C, ref. 2 - ***battery models*** only): 3 LEDs (red, yellow and green) which indicate the level of battery charge. There may be:
  a) **red, yellow and green LEDs on**: battery voltage >24V;
  b) **red and yellow LEDs on**: battery voltage <24V;
  c) **red LEDs on**: battery voltage <23V;
  d) **red LED flashing**: battery voltage <21.5V, batteries completely flat; after a few seconds the brush and suction motor shut down;
- **Main Switch** (fig. C, ref. 3): enables and disables electrical power to all machine functions (to turn the machine off, hold the button down for at least 4 seconds).
- **Brush button with light** (fig. C, ref. 4): enables (LED on) and disables (LED off) the "brush" function. The brush does not start rotating until the brush lever is operated.
- **Suction button with light** (fig. C, ref. 5): turns the suction motor on (LED on) and off (LED off) to dry the floor being washed. The light is on when there is power to the suction motor.
- **Detergent button** (fig. C, ref. 6): enables (LED on) and disables (LED off) detergent flow. The detergent does not flow unless the brush is rotating.
- **Brush lever** (fig. D, ref. 1): enables brush rotation.
- **Squeegee lever** (fig. D, ref. 2): raises (if lowered) or lowers (if raised) the squeegee.
- **Handle regulation lever** (fig. D, ref. 3): allows the angle of the handle to be adjusted.

6.2. Mounting and adjusting the squeegee

The squeegee (fig. A, ref. 5) is responsible for the first phase of drying.

To mount the squeegee on the machine, proceed as follows:
1) check that the squeegee mount (fig. E, ref. 1) is lowered, otherwise lower it by means of the squeegee lever (fig. D, ref. 2);
2) rotate the machine backwards and rest the handle on the floor;
3) insert the two threaded pins on the squeegee into the slots on the support (fig. E, ref. 1);
4) fix the squeegee by tightening the two knobs (fig. E, ref. 2);

5) insert the sleeve of the suction hose (fig. E, ref. 4) fully into the squeegee;
The squeegee blades scrape the film of water and detergent from the floor and prepare the way for perfect drying. With time, the constant rubbing makes the edge of the blade in contact with the floor rounded and cracked, reducing the drying efficiency and requiring it to be replaced. The state of wear should be checked frequently.
For perfect drying, the squeegee must be adjusted in such a way that the edge of the rear blade bends during operation by about 45° with respect to the floor at every point. Adjust the height of the blade during operation by regulating the height of the wheels positioned behind and alongside the squeegee (fig. E ref. 3).

6.3. Moving the machine when not in operation

To move the machine, proceed as follows:

- lift the squeegee using the squeegee lever (fig. D, ref. 2);
- raise the front of the machine by levering on the handle and move it to the destination.
- on arrival, lower the front of the machine.

6.4. Mounting and changing the brush/drive disks

☝ IMPORTANT

Never work without the brushes and drive disks correctly installed.

Brush attachment: turn the machine on by pressing the main switch (fig. C, ref. 3) (LED on), then press the brush button (fig. C, ref. 4 (LED on). Rest the brush on the floor in front of the machine. Raise the front of the machine by levering on the handle, then lower it onto the brush, centring it with the brush cover. Operate the brush lever (fig. D, ref. 1) repeatedly until the brush automatically engages on the flange hub. If the manoeuvre is not successful, press on the handle again and repeat the centring and repeated operation of the brush lever.

Brush release: turn the machine on by pressing the main switch (fig. C, ref. 3) (LED on), then press the brush button (fig. C, ref. 4 (LED on).

Raise the front of the machine by levering on the handle, then operate the brush lever (fig. D, ref. 1) repeatedly. After a few pulses, the brush (or drive disk) is released and falls to the ground.

6.5. Detergents - Instructions

☝ IMPORTANT

Always dilute the detergent according to the manufacturer's instructions. Do not use sodium hypochlorite (bleach) or other oxidants, particularly in strong concentrations. Do not use solvents or hydrocarbons. The temperature of the water and detergent must not exceed the maximum indicated in the technical specification. They must be free of sand and/or other impurities.

The machine has been designed for use with low-foam biodegradable detergents made specifically for scrubber driers.
For a complete and up-to-date list of the detergents and chemicals available, contact the Manufacturer.
Use products suitable for the floor and dirt to be removed only.
Follow the safety regulations on use of detergents given in the section "Safety regulations".

6.6. Preparing the machine for work

☝ IMPORTANT

Before starting work, wear overalls, ear protectors, non-slip waterproof shoes, mask to protect the respiratory tract, gloves and all other personal protection devices recommended by the supplier of the detergent used or necessitated by the work environment.

Before starting work, proceed as follows:

- ***Battery models***: check the battery charge (charge if necessary);
- make sure the dirty water tank (fig. A, ref. 2) is empty. If necessary, empty it;
- via the opening at the front, fill the detergent tank (fig. A, ref. 8) with a suitable concentration of clean water and low-foam detergent. Leave at least 5 cm between the surface of the liquid and the opening of the tank;
- mount the most suitable brushes or drive disks for the floor and work to be performed (see paragraph 3.4);
- make sure the squeegee (fig. A, ref. 5) is firmly attached and connected to the suction hose (fig. E, ref. 4). Make sure the back blade is not worn.

i INFORMATION

If you are using the machine for the first time, we recommend trying it on a large obstacle-free surface first to acquire the necessary familiarity.
Always empty the dirty water tank before filling the detergent tank again.

For effective cleaning and to extend the working life of the machine, follow a few simple rules:

- prepare the work area by removing all possible obstacles;
- begin working from the furthermost point to avoid walking on the area you have just cleaned;
- choose the straightest possible working routes;
- divide large floors into parallel rectangular sections.

If necessary, finish off by passing a mop or rag rapidly over parts inaccessible to the scrubber drier.

6.7. Working

After setting up the machine, proceed as follows:

- Connect the machine as follows:
  - ***cable model***: plug the machine into the mains power socket;
- lower the squeegee by means of the squeegee lever (fig. D, ref. 2);
- press the main switch (fig. C, ref. 3) (LED on);
- press the brush button (fig. C, ref. 4) (LED on)", the suction motor and detergent flow are also activated automatically;
- press the brush lever (fig. D, ref. 1);
- check regularly that detergent is reaching the brushes and top up if necessary;
- while working, check the quality of washing and adjust the flow of detergent to the brushes using the detergent tap (fig. G, ref. 2).

☝ IMPORTANT

Empty the dirty water tank each time you fill the detergent tank.

- The float switch in the dirty water tank turns suction off when the tank is full. If the switch trips, stop work and empty the tank;
- ***Battery models***: if the red LED (fig. C, ref. 2) starts flashing, the batteries are nearly flat. After a few seconds, the brush and suction motor shut down to prevent draining the batteries excessively. Charge the batteries.

At the end of work:

- release the brush lever (fig. D, ref. 1);
- press the detergent button (fig. C, ref. 6) (LED off);
- press the brush button (fig. C, ref. 4) (LED off);
- lift the squeegee lever (fig. D, ref. 2) to raise the squeegee from the floor to prevent the continuous pressure from warping the blades;
- press the suction button (fig. C, ref. 5) (LED on) and brush lever (fig. D, ref. 1) to start suction. Allow the suction to run for 2 minutes, then release the brush lever and press the suction button (fig. C, ref. 5) (LED off) to turn the motor off.
- Turn the machine off by pressing the button (fig. C, ref. 3) for at least 4 seconds.
- remove the brush (or drive disk) to prevent it from warping permanently;
- depending on the model, unplug from the mains socket or disconnect the batteries,
- empty and clean the dirty water tank.

6.8. Some useful tips to get the most from your scrubber drier

In the event of particularly stubborn dirt on the floor, washing and drying can be performed in two separate operations.

6.8.1. Prewashing with brushes or pads

- press the main switch (fig. C, ref. 3) (LED on);
- press the brush button (fig. C, ref. 4) (LED on);
- press the suction button (fig. C, ref. 5) (LED off) to turn suction off;
- operate the brush lever (fig. D, ref. 1) to enable brush rotation;
- make sure the suction motor is off and the squeegee is raised;
- begin washing.
- adjust the flow of detergent to the brush by means of the detergent tap (fig. G, ref. 2). Flow speed must be regulated according to the operator's chosen advance speed. The slower the machine moves forwards, the less water is needed.
  Persist when washing particularly dirty points to give the detergent time to perform its chemical action detaching and suspending the dirt and the brushes time to exert an effective mechanical action.

6.8.2. Drying

Lower the squeegee and with the suction motor on, pass over the same area washed previously. The result is equivalent to in-depth washing and subsequent ordinary maintenance will take less time.
To wash and dry at the same time, operate the brush, detergent flow, squeegee and suction motor simultaneously.

6.9. Draining the dirty water

! DANGER

Use suitable personal protection devices.
Drain the water with the machine disconnected from the power supply.

The dirty water tank drain hose is at the back of the machine on the right.
To empty the tank:

- move the machine near a drain;
- detach the drain hose (fig. A, ref. 7) from its seat by holding it near the fixing spring and pulling horizontally;
- keeping the end of the hose as high as possible and remove the cap;
- lower the end of the hose gradually, controlling the intensity of the flow of water by adjusting the height from the ground;
- check the amount of dirt left in the dirty water tank and if necessary wash it out;

- close the drain hose with the cap. Check that it is tightly closed and replace the hose in its housing.
- You are then ready to wash and dry again.

6.10. Draining the clean water

! DANGER

Use suitable personal protection devices.
Drain the water with the machine disconnected from the power supply.

To empty the tank:
- move the machine near a drain;
- remove the cap (fig. G, ref. 1);
- when the detergent tank is completely empty, replace the cap (fig. G, ref. 1).

¡ INFORMATION

The water and detergent solution can also be used to wash the dirty water tank.

7. PERIODS OF INACTIVITY

If the machine is not used for some time, remove the squeegee and brush (or drive disk), wash them and put them away in a dry place (preferably in a bag or wrapped in plastic film) away from dust.
Make sure the tanks are completely empty and perfectly clean.
Disconnect the machine from the power supply (depending on the model, unplug from the mains or disconnect the connector from the battery wiring).
Battery models: charge the batteries completely before storing them. During long periods of inactivity, you should charge the batteries regularly (at least once every two months) to keep them constantly at maximum charge.

☝ IMPORTANT

If you do not charge the batteries regularly, they may be irrevocably damaged.

8. BATTERY MAINTENANCE AND CHARGING

! DANGER

Do not check the batteries by sparking.
The batteries give off flammable fumes. Put out all fires and hot embers before checking or topping up the batteries.
Perform the operations described above in a ventilated room.

To avoid permanent damage to the batteries, do not run them down completely.
Remember that when the corresponding red light (fig. C, ref. 2) flashes on the control panel, you must charge the batteries.

8.1. Charging procedure

- if the machine does not have an on-board charger, connect the external battery charger connector to the battery wiring connector.
- if the machine has an on-board battery charger, connect the on-board battery charger power cable (fig. H, ref. 1).

☝ IMPORTANT

In the case of gel batteries, use a charger specific for gel batteries only.

- Charge the batteries as described in the battery charger manual;
- at the end of charging, disconnect the connectors;
- reconnect the battery wiring connector to the machine connector (machine with external battery charger).

9. MAINTENANCE INSTRUCTIONS

! DANGER

Never perform any maintenance operations without first unplugging the machine from the mains (cable version) or disconnecting the batteries.

In cable models, the operator must be able to verify from any position that the machine remains unplugged from the mains socket while maintenance is being carried out.

Maintenance on the electrical circuit and all other operations not explicitly described in this manual must be performed by specialised personnel only, in compliance with current safety legislation and as described in the maintenance manual.

9.1. Maintenance - General rules

Performing regular maintenance according to the Manufacturer's instructions improves performance and extends the working life of the machine.

When cleaning the machine, respect the following:

- avoid the use of high pressure washers. Water could penetrate the electrical compartment or motors leading to damage or the risk of short circuit;
- do not use steam to avoid the heat warping plastic parts;
- do not use hydrocarbons or solvents as they could damage the cowling and rubber parts.

9.2. Routine maintenance

9.2.1 Float switch: cleaning

- Remove the dirty water tank cap and clean the float switch (fig. I, ref. 1). Make sure it runs freely on the pin.
- clean the detergent tank filter (CT30 ONLY) (fig. N).

9.2.2 Squeegee blades: replacing

The squeegee blades collect the film of water and detergent from the floor and prepare the way for perfect drying. With time, the constant rubbing makes the edge of the blade in contact with the floor rounded and cracked, reducing the drying efficiency and requiring it to be replaced.

Turning or replacing the blades:

- lower the squeegee by means of the squeegee lever (fig. D, ref. 2);
- tip the machine backwards and rest the handle on the floor.
- remove the suction hose sleeve (fig. E, ref. 4) from the squeegee;
- remove the squeegee (fig. E ref. 1) from its mount by completely unscrewing the two knobs (fig. E ref. 2)
- remove the blade retainers and blades by unscrewing the knobs (fig. E, ref. 5);
- reuse the same blade by reversing the edge in contact with the floor until both edges are worn out, or replace with a new blade, fitting it onto the screws on the body of the squeegee;

- replace the two blade retainers and the blades and screw up the knobs unscrewed previously.
- Replace the squeegee in its support following the instructions in paragraph 6.2.

9.2.3 Fuses: replacement (battery models) (Fig. L)

The fuse protecting the electrical circuit is located on the battery bridge.
To replace it:

- make sure the dirty water tank is empty and empty if necessary;
- lift the dirty water tank to access the batteries;
- lift the fuse holder lid and remove the fuse;
- fit a new fuse and close the fuse holder cover.
- lower the dirty water tank.

Fuse table: for the complete fuse table, see the spare parts catalogue.

9.2.4 Fuses: replacement (cable models) (fig. M)

The fuses protecting the electrical components are on the electrical components box.
To replace:

- make sure the dirty water tank is empty and empty if necessary;
- lift the dirty water tank to access the electrical components compartment;
- open the cover of the fuse holder on the electrical components box and remove the fuse;
- fit a new fuse and close the fuse holder cover.
- lower the dirty water tank.

Fuse table: for the complete fuse table, see the spare parts catalogue.

☝ IMPORTANT

Never use a fuse with a higher amperage than specified.

If a fuse continues to blow, the fault in the wiring, boards (if present) or motors must be identified and repaired. Have the machine checked by qualified personnel.

9.3. Routine maintenance

9.3.1. Daily operations

After each day's work, proceed as follows:

- disconnect the machine from the power supply;
- empty the dirty water tank and clean if necessary;
- clean the squeegee blades and check for wear. If necessary, replace.
- check that the suction hole in the squeegee is not blocked, if necessary remove encrusted dirt;
- ***Battery model***: charge the batteries according to the procedure described;

9.3.2. Weekly operations

- clean the dirty water tank float switch and make sure it is working correctly;
- clean the suction hose;
- clean the dirty water tank and detergent tank;
- ***Battery model***: check the level of battery electrolyte and top up with distilled water if necessary;

9.3.3. Six monthly operations

Have the electrical circuit checked by qualified personnel.

10. TROUBLESHOOTING

10.1. How to resolve possible problems

[B]= battery machines
[C]= cable machines

Possible problems affecting the whole machine.

PROBLEM	CAUSE	REMEDY
The machine does not function	•**[B]=** battery connector disconnected	•**[B]=** connect the batteries to the machine
	•**[B]=** the batteries are flat	•**[B]=** charge the batteries.
	•**[B] [C]=** fuse blown	•**[B] [C]=** replace the fuse
	•**[B]=** temperature power board > 85℃	•**[B]=** stop the machine, leave to cool down for 45'
	•**[B]=** MOSFET temperature > 150℃	•**[B]=** stop the machine, leave to cool down for 45’
	•**[C]=** the machine is not plugged into the mains socket	•**[C]=** plug into the mains socket
The brush doesn’t rotate	• the brush button LED is off	• press the brush button
	• the brush lever has not been pressed	• press the brush lever
	• **[B] [C]** the brush motor thermal cutout has tripped; the motor has overheated	• **[B] [C]** release the brush lever, press the brush button (LED off), leave the machine to cool down for at least 45'
	•**[B]=** MOSFET temperature > 150℃	•**[B]=** stop the machine, leave to cool down for 45’
	•**[B]=** excessive motor absorption >30 A for 1 second	•**[B]=** stop the machine and check the motor
	• the power supply or motor thermal cutout connectors are disconnected	• reconnect the power supply or motor thermal cutout connectors
	• **[C]=** fuse blown	• **[B] [C]=** replace fuse
	• **[B]=** the batteries are flat	• **[B]=** charge the batteries
	• the reduction unit is faulty	• have the reduction unit replaced
	• the motor is faulty	• have the motor replaced
The brush motor has trouble in starting (*cable models* only)	• you are working with a dry brush on a very rough floor	• open the detergent tap
	• you are working with power cable extensions with an inadequate section, or the voltage is considerably lower than the rated value for the scrubber drier as shown on the rating plate (15% less)	• avoid the use of inappropriate extensions. Increase the section of the electric wires and locate sockets with a higher voltage
	• the motor is faulty	• have the motor replaced
The machine does not clean evenly	• the brush or disk is worn	• replace

No detergent is delivered	• the detergent button LED is off	• press the detergent button
	• detergent tank empty	• fill the detergent tank
	• the brush motor is off	• turn the motor on by operating the brush lever
	• the hose delivering the detergent to the brush is blocked	• unblock and open the circuit
	• the tap is dirty or faulty	• have the tap cleaned or replaced
	• the solenoid valve is faulty	• replace the solenoid valve
	•the filter is dirty (CT 30 ONLY)	• clean the filter

The detergent flow does not stop	• the solenoid valve is faulty	• replace the solenoid valve

The suction motor does not start	• the suction button LED is off	• press the suction button.
	• There is no power to the suction motor or the motor is faulty	• check that the motor power connector is correctly connected to the main wiring; if it is correctly connected, have the motor replaced
	•**[B]=** MOSFET temperature > 150℃	•**[B]=** stop the machine, leave to cool down for 45’
	•**[B]=** excessive motor absorption >30 A for 2 second	•**[B]=** stop the machine and check the motor

The squeegee does not clean or suction is ineffective	• the edge of the rubber blades in contact with the floor is worn	• replace the rubber blade
	• the squeegee or hose is blocked or damaged	• unblock and repair the damage
	• the float switch has tripped (dirty water tank), is clogged by dirt or broken	• empty the dirty water tank or reset the float switch
	• the suction hose is blocked	• unblock the hose
	• the suction hose is not connected to the squeegee or is damaged	• connect or repair the hose
	• there is no power to the suction motor or the motor is faulty	• see: "**The suction motor does not start**"

The batteries do not provide the normal work time (*battery models only*)	• the battery poles and charging terminals are dirty and oxidised	• clean and grease the poles and terminals, charge the batteries
	• the electrolyte level is low	• top up all the elements with distilled water as described in the instructions
	• the battery charger does not work or is unsuitable	• see battery charger instructions
	• there are considerable differences in density between the various elements of the battery	• replace the damaged battery

The battery discharges too fast during use, even though it has been charged correctly and when tested with a hydrometer at the end of recharging, it turned out to be uniformly charged (*battery models only*)	• the battery is new and does not deliver 100% of its expected capacity	• the battery must be "run-in" by performing 20-30 charges and discharges to obtain maximum performance
	• the machine is being used at maximum capacity for continuous periods and the working time is not sufficient	• if possible, use batteries with a higher capacity or replace the batteries with others charged previously
	• the electrolyte has evaporated and does not cover the plates completely	• top up all elements with distilled water until the plates are covered then charge the battery

The battery discharges too fast during use, recharging with an electronic battery charger is too fast and after recharging the battery supplies the right voltage (about 2.14V for each element without load), but when tested with a hydrometer is found not to be uniformly charged (*battery models only*)	• the battery supplied filled with acid by the Manufacturer has been stored for too long before being charged and used for the first time	• if recharging with a normal battery charger is not effective, you must use a double recharging cycle: - charge it slowly over a 10 hour period at a current of 1/10 the nominal capacity for 5 hours (e.g. for a 100Ah(5) battery the current must be set at 10A, using a manual battery charger); - rest for one hour; - charge it with the normal battery charger.

At the end of charging with the electronic battery charger, the battery does not provide the correct voltage (about 2.14 V per element without load) and appears to be uniformly not charged when tested with a hydrometer (*battery models only*)	• The battery has not been connected to the battery charger (for example, because the low voltage connector of the battery charger has been erroneously connected to the machine connector)	• connect the battery charger to the battery connector
	• the battery charger and power socket to which the battery is connected are not compatible	• check that the power supply characteristics indicated on the battery charger rating plate comply with those of the mains power supply
	• the battery charger has not been installed correctly	• taking the actual voltage available at the socket into account, make sure that the connections of the primary of the transformer inside the battery charger are correct (consult the battery charger manual)
	• the battery charger is not working	• make sure there is voltage to the battery charger, that the fuses are not blown and that the current reaches the battery; try charging with another rectifier. If the battery charger is not working, contact the technical service centre and indicate the serial number of the battery charger

At the end of charging with the electronic battery charger, the battery does not provide the correct voltage (about 2.14 V per element without load) and only one or a few elements are found to be discharged when tested with a hydrometer (*battery models only*)	• one or more elements are damaged	• replace the damaged elements if possible. For 6 or 12 V single block batteries, replace the entire battery

The electrolyte in the battery is turbid (*battery models only*)	• the battery has reached the end of the charging/discharging cycles declared by the manufacturer	• replace the battery
	• the battery has been charged with too high a current	• replace the battery
	• the battery has been charged beyond the limit suggested by the Manufacturer	• replace the battery

IPC Integrated Professional Cleaning

IPC Gansow

Spare Parts List

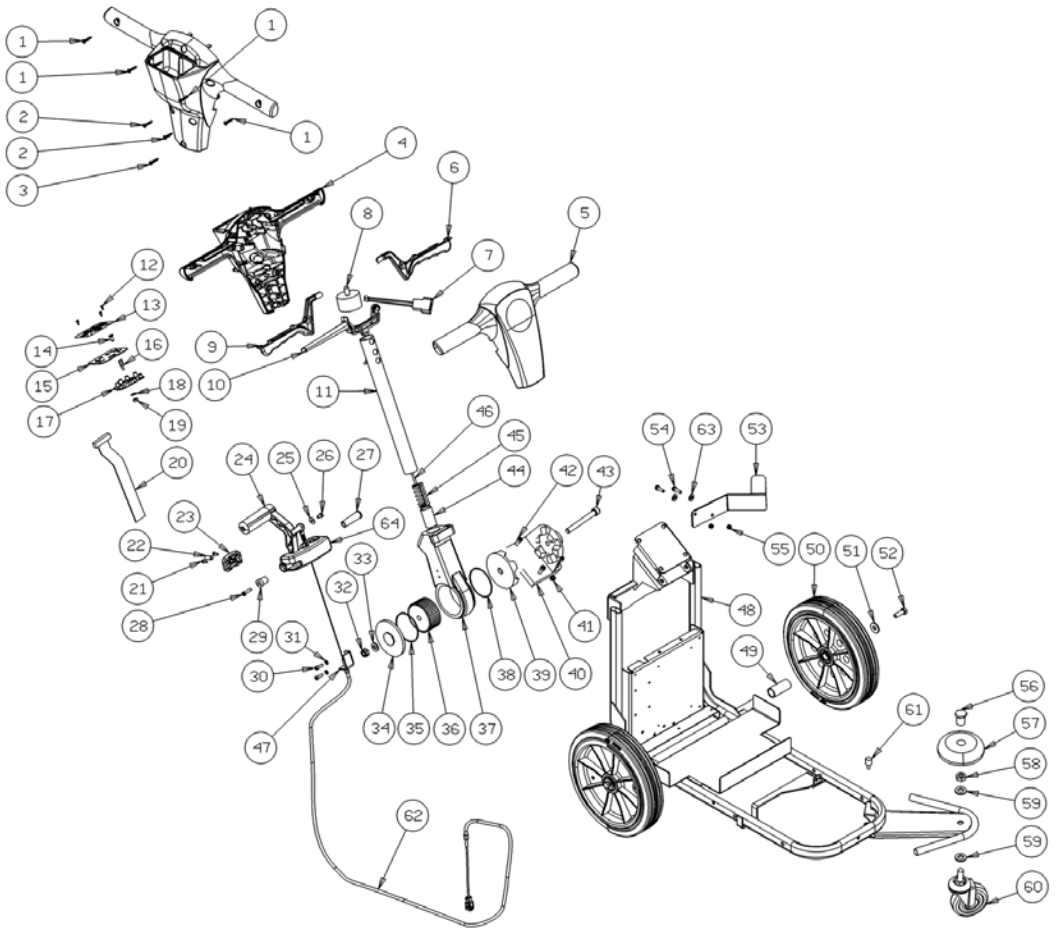
IPC EAGLE

Ref: LPTB02500

Model: CLEANTIME CT30 B + CB + BATT. JP/USA

Table: FRAME

Progressive Number: 1



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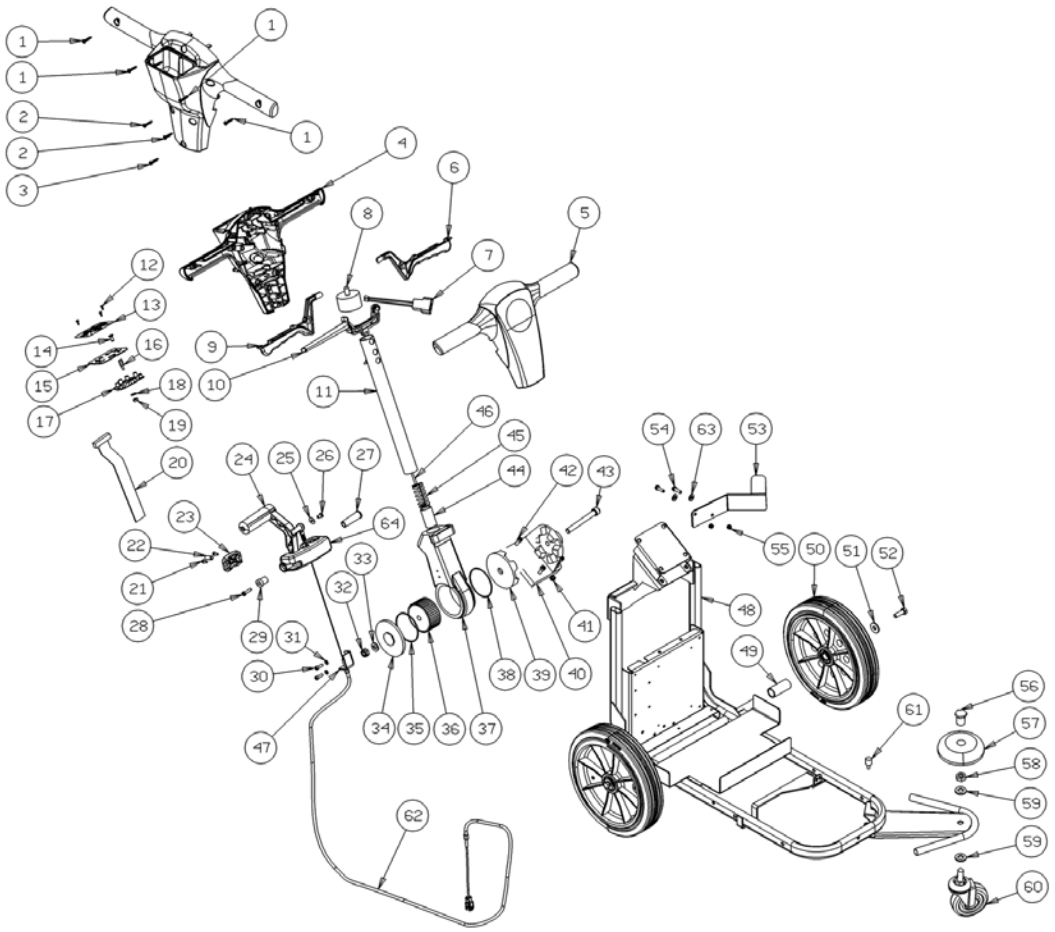
0001		VTVT01371		SCREW 4,8X19	4,00			--
0002		VTVT01372		SCREW 4,8X25	2,00			--
0003		VTVT01373		SCREW 4,8X38	1,00			--
0004		MPVR05837		HANDLE -	1,00			--
0005		MPVR05486		CRANKCASE -	1,00			--
0006		MPVR05490		LEVER -	1,00			--
0007		MECB01273		WIRING	1,00			--
0008		MERL00013		SWITCH -	1,00			--
0009		MPVR05490		LEVER -	1,00			--
0010		MPVR05488		LEVER -	1,00			--
0012		VTVT00800		SCREW TC 4X12 ZN	3,00			--
0013		ETET01667		LABEL -	1,00			--
0014		VTVT01377		SCREW TSP-TC M 3X5 UNI7688 INX	4,00			--
0015		LAFN08891		BRACKET -	1,00			--
0016		VTVR00481		INSERT FILETTATO M6	4,00			--
0017		MECE00554		BOARD CT30	1,00			--
0018		VTRS00268		WASHER D.3	4,00			--
0019		VTDD21115		NUT M 3 INOX	4,00			--
0020		MECB01288		CABLE FLAT CT30	1,00			--
0021		VTVT01375		SCREW 5X22	2,00			--
0022		MPVR05925		HOSE COLLAR CT15	1,00			--
0023		MPVR05925		HOSE COLLAR CT15	1,00			--
0024		MPVR49942		LEVER SHK PP	1,00			--
0025		VTRS00251		WASHER 4-16 INOX A2	1,00			--
0026		VTVT00800		SCREW TC 4X12 ZN	1,00			--
0027		MPVR05927		PIN CT15	1,00			--
0028		VTVT01374		SCREW 5X40	1,00			--
0029		MPVR05928		BUSHING CT15	1,00			--
0030		VTVT17639		SCREW TCEI M 5X10 UNI 5931	2,00			--
0031		VTRS08013		WASHER D. 5 GRW	2,00			--
0032		VTDD00042		NUT AUT.M10 UNI7474	1,00			--
0033		VTRS00505		WASHER D.10 TE UNI 6592	1,00			--
0034		LAFN07476		COVER -	1,00			--
0035		GUGO00437		O-RING -	1,00			--
0036		MTIG00125		GEAR	1,00			--
0037		LAFN07475		SUPPORT -	1,00			--
0038		GUGO00437		O-RING -	1,00			--
0039		LAFN07477		COVER -	1,00			--
0040		LAFN07478		SUPPORT -	1,00			--

Table: FRAME

Progressive Number: 1



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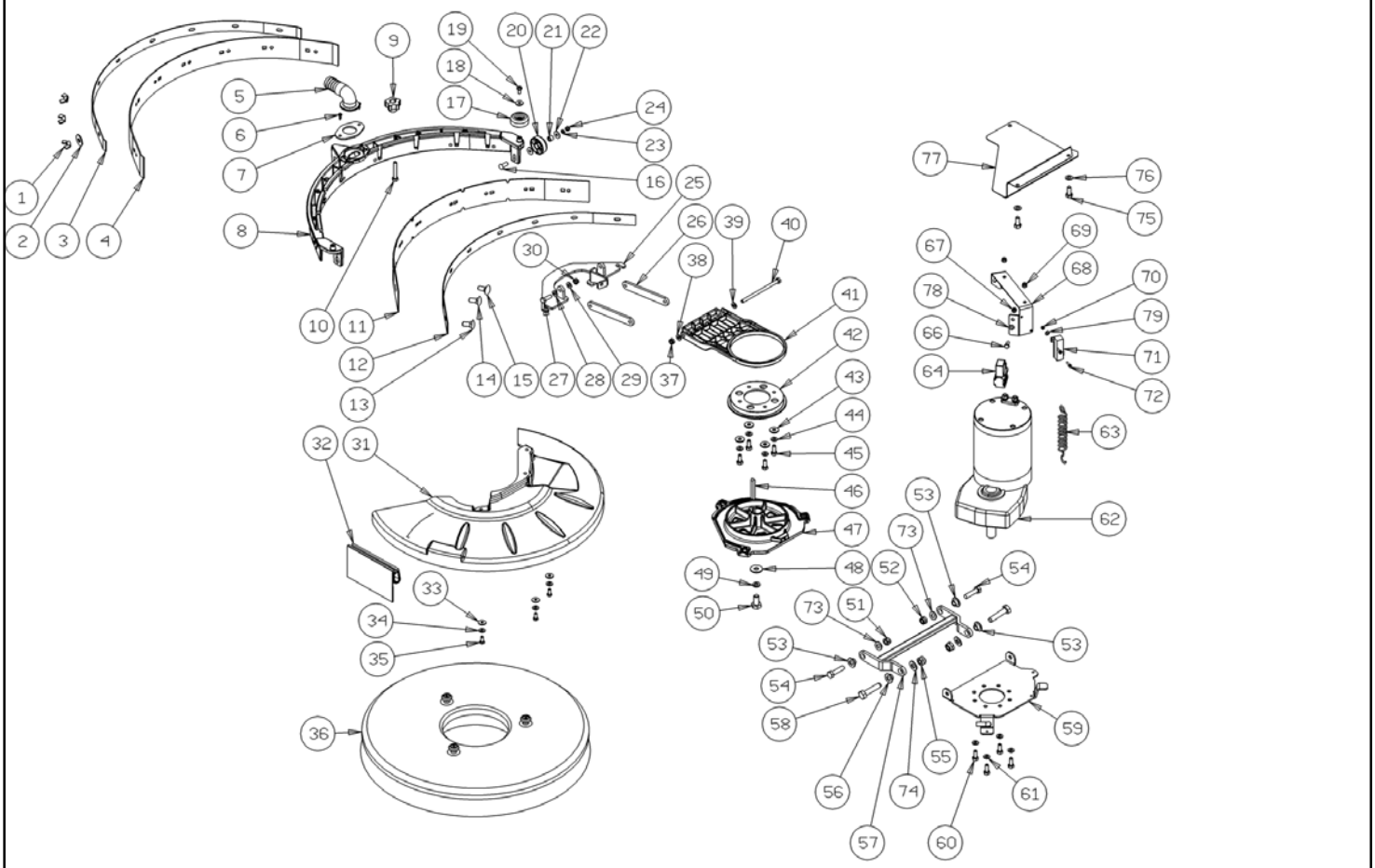
0042		VTVT29810		SCREW TCEI M 8X20 UNI 5931	4,00			--
0043		VTVT01205		SCREW -	1,00			--
0044		MTIG00126		GEAR	1,00			--
0045		MLML00319		SPRING -	1,00			--
0046		LAFN07917		SUPPORT -	1,00			--
0047		LAFN08898		BRACKET -	1,00			--
0048		LAFN07901		FRAME -	1,00			--
0049		LAFN09154		BUSHING CT30	2,00			--
0050		RTRT00537		WHEEL -	2,00			--
0051		VTRS00512		WASHER D. 8 X24 ZC.	2,00			--
0052		VTVT01110		SCREW TE 8X16 UNI5739	2,00			--
0053		LAFN09171		BRACKET -	1,00			--
0054		VTVT15143		SCREW TE 6X16 UNI5739	2,00			--
0055		VTDD01694		NUT M 6 INX	2,00			--
0056		LAFN09172		BUSHING -	1,00			--
0057		MPVR05965		WHEEL -	1,00			--
0058		VTDD00502		NUT M12	1,00			--
0059		VTRS15978		WASHER D.12X24 UNI 6592 INX	2,00			--
0060		RTRT00544		WHEEL D.80MXHC	1,00			--
0061		MPVR05967		CAP -	1,00			--
0062		CMCV00453		CABLE -	1,00			--
0063		VTRS00245		WASHER D.6 UNI 6592 INOX	2,00			--
0064		MPVR05926		SUPPORT CT15	1,00			--



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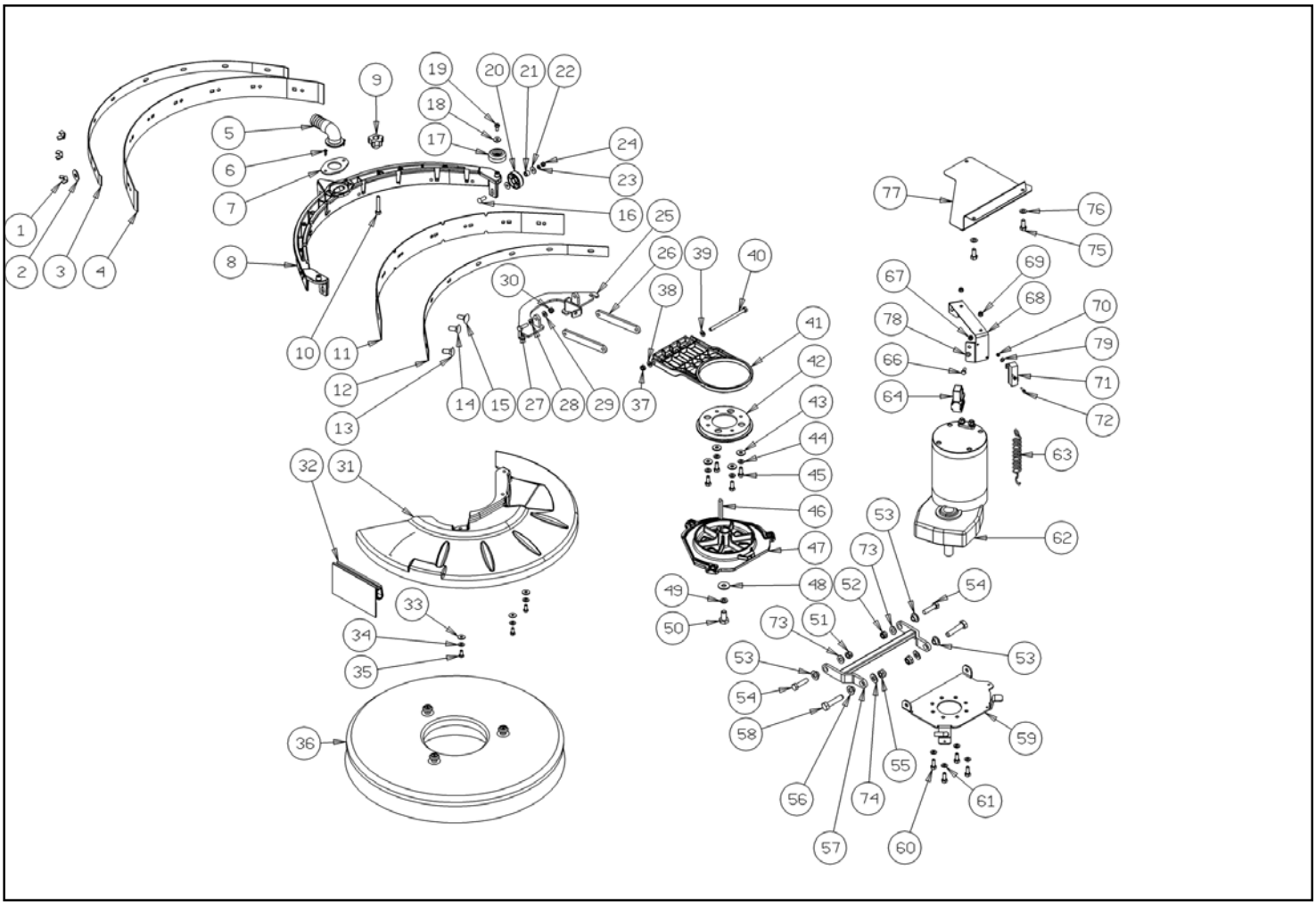
0001		VTDD00522		NUT M5	6,00			--
0002		VTRS13750		WASHER D. 5X14 INX	6,00			--
0003		LAFN07908		BRACKET -	1,00			--
0004		MPVR05954		FLAP -	1,00			--
0005		MPVR05831		CONNECTOR -	1,00			--
0006		VTVT48694		SCREW TCB TC 5 X12 UNI 9707 TZ	2,00			--
0007		LAFN08890		FLANGE -	1,00			--
0008		MPVR05914		FLOOR WIPER -	1,00			--
0009		MPVR05842		SMALL KNOB -	2,00			--
0010		VTVT15515		SCREW TE M 6X 50 INOX A2	2,00			--
0011		MPVR05953		FLAP -	1,00			--
0012		LAFN07907		BRACKET -	1,00			--
0013		VTVT01690		SCREW M5x25	2,00			--
0014		VTVT01691		SCREW M5x35	2,00			--
0015		VTVT01691		SCREW M5x35	2,00			--
0016		VTVT01693		SCREW M5x20	3,00			--
0017		MPVR05832		WHEEL -	2,00			--
0018		VTRS13750		WASHER D. 5X14 INX	2,00			--
0019		VTVT48694		SCREW TCB TC 5 X12 UNI 9707 TZ	2,00			--
0020		MPVR05832		WHEEL -	3,00			--
0021		LAFN08913		BUSHING -	3,00			--
0022		VTRS13750		WASHER D. 5X14 INX	6,00			--
0023		VTRS15908		WASHER D. 5 INX GRW UNI 1751	3,00			--
0024		VTDD01693		NUT M 5 INX	3,00			--
0025		LAFN07903		SUPPORT -	1,00			--
0026		LAFN07902		ARM -	2,00			--
0027		VTVT13939		SCREW TE 6X20 UNI5739 INX	2,00			--
0028		VTRS00245		WASHER D.6 UNI 6592 INOX	2,00			--
0029		VTRS00245		WASHER D.6 UNI 6592 INOX	2,00			--
0030		VTDD01694		NUT M 6 INX	2,00			--
0031		MPVR05916		COVER -	1,00			--
0032		MPVR05966		FLAP -	1,00			--
0033		VTRS13750		WASHER D. 5X14 INX	3,00			--
0034		VTRS15908		WASHER D. 5 INX GRW UNI 1751	3,00			--
0035		VTVT01300		SCREW TE M5X12 INOX	3,00			--
0036		SPPV01313		BRUSH D.450 NYLON 0,8	1,00			--
0037		VTDD01694		NUT M 6 INX	1,00			--
0038		VTRS00245		WASHER D.6 UNI 6592 INOX	1,00			--
0039		VTRS00245		WASHER D.6 UNI 6592 INOX	1,00			--



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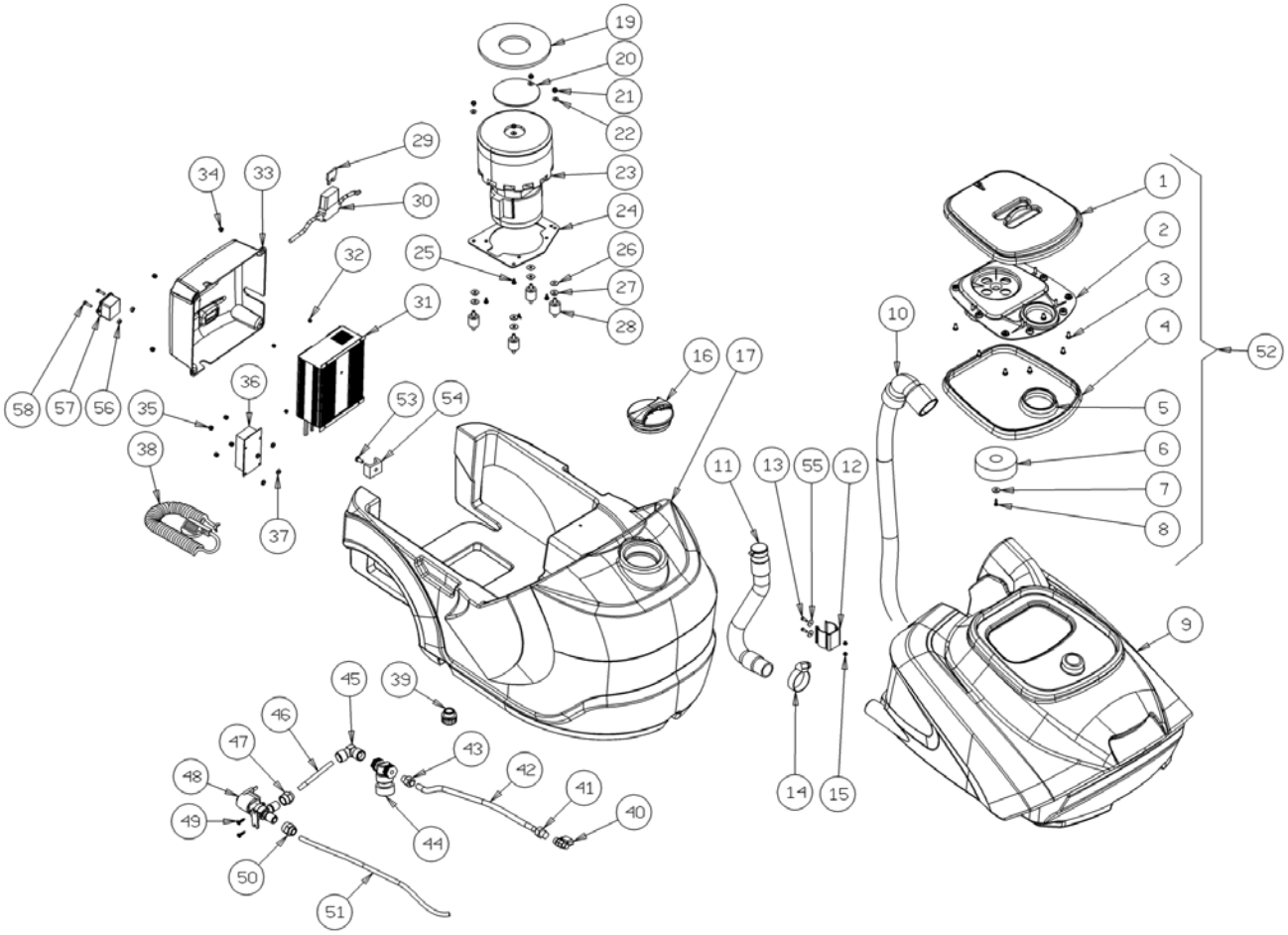
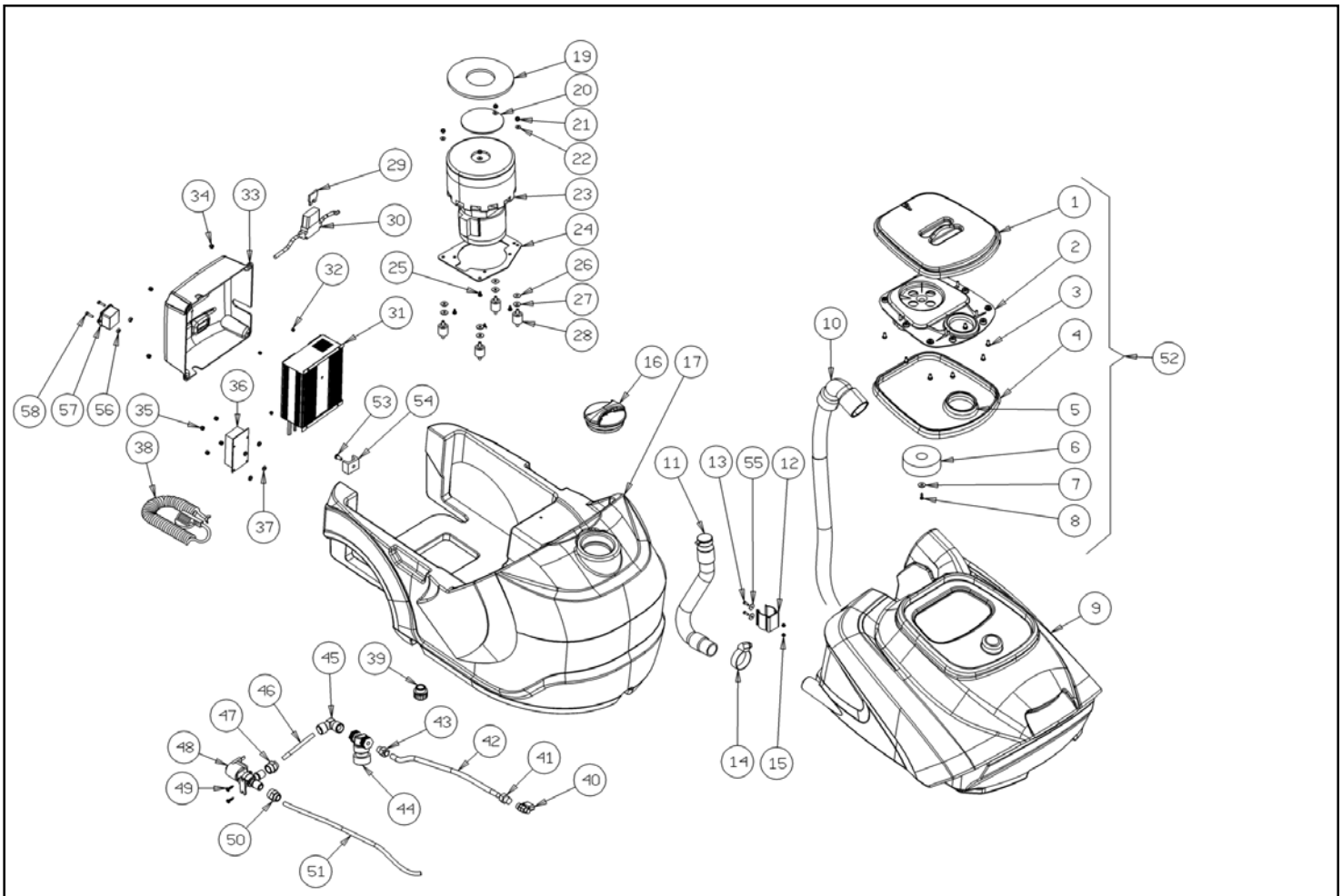
0042		MPVR05830		BRACKET -	1,00			--
0043		VTRS13945		WASHER D. 6X18 INX UNI 6593	4,00			--
0044		VTRS15144		WASHER D. 6 INX GRW UNI 1751	4,00			--
0045		VTVT13939		SCREW TE 6X20 UNI5739 INX	4,00			--
0046		VTVR16617		KEY 6X 6X30 UNI 6604	1,00			--
0047		MFVR00212		DRIVE DISK	1,00			--
0048		VTRS13946		WASHER D. 8 X24 INX UNI 6593	1,00			--
0049		VTRS15146		WASHER D. 8 INX GRW UNI 1751	1,00			--
0050		VTVT13938		SCREW TE 8X20 UNI5739 INX	1,00			--
0051		VTDD01695		NUT M 8 INX	1,00			--
0052		VTDD01695		NUT M 8 INX	1,00			--
0053		LAFN06391		BUSHING PARALLELOGRAMMA	3,00			--
0054		VTVT00410		SCREW TE M8x35 UNI5739 INOX	2,00			--
0055		VTDD01695		NUT M 8 INX	2,00			--
0056		LAFN51068	#8479.90.9498	BUSHING LEVA POSTER.	1,00			--
0057		LAFN07910		BRACKET -	1,00			--
0058		VTVT15907		SCREW TE 8X25 UNI5739 INX	2,00			--
0059		LAFN07905		SUPPORT -	1,00			--
0060		VTVT15906		SCREW TE 6X 12 A2 UNI 5739	4,00			--
0061		VTRS15144		WASHER D. 6 INX GRW UNI 1751	4,00			--
0062		MOCC00406		MOTOR	1,00			--
0063		MLML00065		SPRING L0=80 De=12 Df=1.7	1,00			--
0064		MECI00005		RELAY 24V 10/20A	1,00			--
0066		VTVT34115		SCREW TE M 5X 10 UNI 5739	1,00			--
0067		VTDD01693		NUT M 5 INX	1,00			--
0068		LAFN07906		BRACKET -	1,00			--
0069		VTDD00128		SELF-LOCJ.NUT M5	2,00			--
0070		VTDD21115		NUT M 3 INOX	2,00			--
0072		VTVT00743		SCREW TC+ M. 3-8	2,00			--
0073		VTRS13947		WASHER D. 8 INX UNI 6592	2,00			--
0074		VTRS13947		WASHER D. 8 INX UNI 6592	4,00			--
0075		VTVT34115		SCREW TE M 5X 10 UNI 5739	3,00			--
0076		VTRS13750		WASHER D. 5X14 INX	3,00			--
0077		MPVR05957		PROTECTION -	1,00			--
0078		VTRS13750		WASHER D. 5X14 INX	1,00			--
0079		VTRS27296		WASHER GROWER 3 ZNT	2,00			--

Table: TANK

Progressive Number: 1



Ref.	K	Part N.	Customer Part N.	Description	Qty	Validity: From	To	Price
0001		MPVR05825		COVER -	1,00			--
0002		MPVR05826		COVER -	1,00			--
0003		VTVT01694		SCREW TCB TC 5 X10 UNI 9707 TZ	8,00			--
0004		GUVR00288		GASKET N052 S1007	1,00			--
0005		GUVR00288		GASKET N052 S1007	1,00			--
0006		MPVR05836		FLOATER -	1,00			--
0007		VTRS00573		WASHER 30x6x3	1,00			--
0008		VTVT48694		SCREW TCB TC 5 X12 UNI 9707 TZ	1,00			--
0009		MPVR05912		TANK -	1,00			--
0010		TBFX00351		TUBE -	1,00			--
0011		TBFX00350		TUBE -	1,00			--
0012		MPVR46988		CLIP LAV. SHK	1,00			--
0013		VTVT29884		SCREW TE M 4X 16 UNI 5739	2,00			--
0014		FSVR00002		CLAMP EKOFLEX 9 23-35	1,00			--
0015		VTDD04369		NUT M 4 TEF UNI 7473	2,00			--
0016		MPVR05188		CAP -	1,00			--
0017		MPVR05913		TANK -	1,00			--
0019		GUGO00444		GASKET -	1,00			--
0020		LAFN05830		NET FERMA FILTRO INOX	1,00			--
0021		VTDD07727		NUT M 5 INOX	4,00			--
0022		VTRS15908		WASHER D. 5 INX GRW UNI 1751	4,00			--
0023		MEVR05200		CARBON MOTORE ASP.AMET.116599-13	2,00			--
0023		MOCC00397		MOTOR CT15	1,00			--
0024		LAFN08894		PLATE -	1,00			--
0025		VTVT48694		SCREW TCB TC 5 X12 UNI 9707 TZ	4,00			--
0026		VTRS13750		WASHER D. 5X14 INX	4,00			--
0027		VTRS13750		WASHER D. 5X14 INX	4,00			--
0028		ABGO00052		VIBRATION DAMP.-	4,00			--
0029		MEVR02048		FUSE 40A	1,00			--
0030		MECB01286		WIRING	1,00			--
0031		BACA00156		BATTERY-CHARGER-	1,00			--
0032		VTDD00001		NUT UNI 5588 M3 ZB	4,00			--
0033		MPVR05915		COVER -	1,00			--
0034		VTDD04368		NUT M 4 ZIN UNI 5588	4,00			--
0035		VTDD04368		NUT M 4 ZIN UNI 5588	4,00			--
0036		MECE00529		BOARD CT15	1,00			--
0037		VTRS00377		WASHER M4	4,00			--
0038		MECB00923		EXTENSION AWG18 SPINA USA	1,00			--
0039		MPVR08003		CAP	1,00			--



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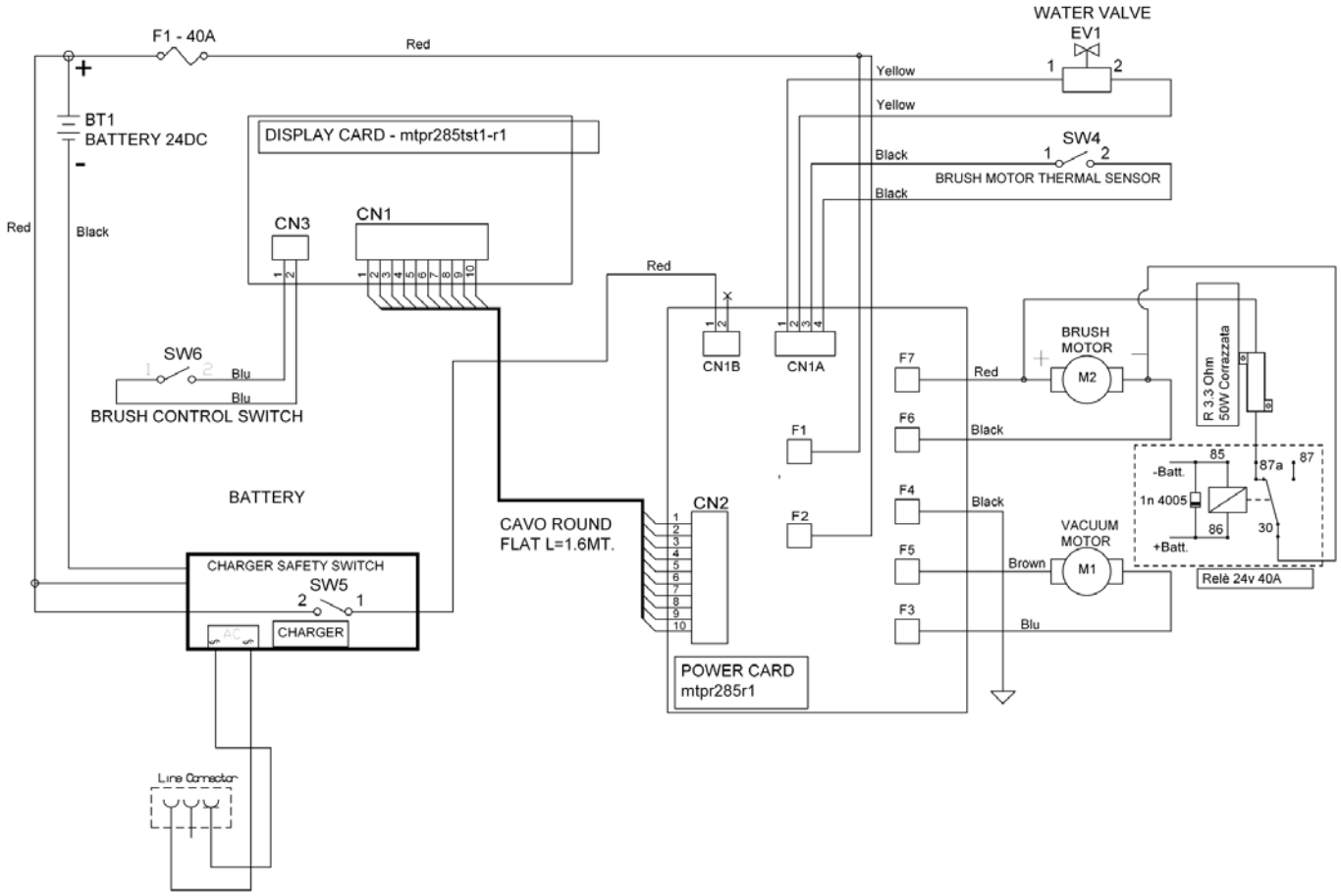
0040		RCGR00081		VALVE -	1,00			--
0041		RCVR00770		CONNECTOR 1/8	1,00			--
0042		TBBP00481		TUBE -	0,32			--
0043		RCVR00771		CONNECTOR 1/4	1,00			--
0044		FTAC00042		FILTER -	1,00			--
0045		RCVR00773		CONNECTOR 1/4	1,00			--
0046		TBBP00481		TUBE -	0,20			--
0047		RCVR00772		CONNECTOR 1/4	1,00			--
0048		MEEV00042		SOLENOID VALVE	1,00			--
0049		VTVT48694		SCREW TCB TC 5 X12 UNI 9707 TZ	2,00			--
0050		RCVR00772		CONNECTOR 1/4	1,00			--
0051		TBBP00481		TUBE -	0,48			--
0052		KTRI01989		KIT RECOVERY LID	1,00			--
0053		VTVT00311		SCREW TE M4X12	1,00			--
0054		FSVR00243		CLAMP 20/30	1,00			--
0055		VTRS05904		WASHER D. 4 X16 2.083	2,00			--
0056		VTDD00001		NUT UNI 5588 M3 ZB	2,00			--
0058		VTVT00035		SCREW M 3X 8 TS TC ZC	2,00			--



Ref.	K	Part N.	Customer Part N.	Description	Qty	Validity: From	To	Price
EV1		MEEV00042		SOLENOID VALVE	1,00			--
F1		MEVR02048		FUSE 40A	1,00			--
M1		MOCC00397		MOTOR CT15	1,00			--
M2		MOCC00406		MOTOR	1,00			--